

As a below-named inventor, I hereby declare that:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING ARTIFICIAL CHROMOSOMES

the specification of which (check one)

- () is attached hereto.
(X) was filed by an authorized person on my behalf on April 10, 1996 as Application Serial No. 08/629,822.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate listed below and so identified, or §365(a) of any PCT international application that designated at least one country other than the United States of America, listed below, and I have also identified below any foreign application for patent or inventor's certificate or PCT international application on this invention filed by us or our legal representatives or assigns and having a filing date before that of the application on which priority is claimed.

| <u>Number</u> | <u>Country</u> | <u>Day/Month/Year Filed</u> | <u>Priority Claimed (Yes or No)</u> |
|---------------|----------------|-----------------------------|-------------------------------------|
| N/A | | | |

I hereby claim benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

| <u>Application Serial No.</u> | <u>Filing Date</u> |
|-------------------------------|--------------------|
| N/A | |

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| <u>Application Serial No.</u> | <u>Filing Date</u> | <u>Status</u> |
|-------------------------------|--------------------|---------------|
| N/A | | |

| <u>PCT Application Serial No.</u> | <u>Filing Date</u> | <u>Status</u> |
|-----------------------------------|--------------------|---------------|
| N/A | | |

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorneys and agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith and request that all correspondence and telephone calls in respect to this application be directed to Stephanie Seidman,
BROWN, MARTIN, HALLER & McCLAIN, 1660 Union Street, San Diego, California 92101-2926:

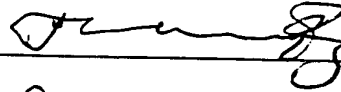
| <u>Attorney</u> | <u>Reg. No.</u> |
|--------------------|-----------------|
| Stephanie Seidman | 33,779 |
| Carl Brown | 18,587 |
| Neil R. Martin | 23,088 |
| John L. Haller | 27,795 |
| James W. McClain | 24,536 |
| Paula K. Schoeneck | 39,362 |

Address for correspondence: Stephanie Seidman
BROWN, MARTIN, HALLER & McCLAIN
1660 Union Street
San Diego, CA 92101-2926

Full name joint inventor:

GYULA HADLACZKY

Inventor's signature:



Date:

April 16, 1996

Residence:

HUNGARY

Post Office Address:

H. 6723, SZEGED

SZAMOS U.1.A. IX. 36.

HUNGARY

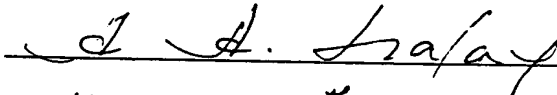
Citizenship:

HUNGARIAN

Full name of joint inventor:

ALADAR A. SZALAY

Inventor's signature:



Date:

May 15th 1996

Residence:

HIGHLAND, CALIFORNIA

Post Office Address:

7327 FAIRWOOD

HIGHLAND, CALIFORNIA 92346

Citizenship:

UNITED STATES OF AMERICA AND
CANADA

362790 84936060

A S S I G N M E N T

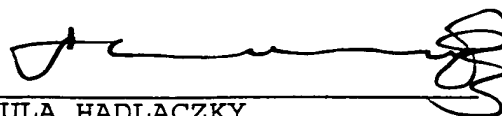
WHEREAS, I, GYULA HADLACZKY, of Hungary, for good and valuable consideration, have assigned and do hereby assign to THE BIOLOGICAL RESEARCH CENTER OF THE HUNGARIAN ACADEMY OF SCIENCES, organized under the laws of Hungary, with its principal place of business at H-6701 Szeged, P.O.B. 521, Hungary, its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter invented by me and disclosed in the application for Letters Patent of U.S. Serial No. 08/629,822 entitled **ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING**

ARTIFICIAL CHROMOSOMES

which was filed on April 10, 1996, and in and to all Letters Patent and all Convention and Treaty rights of all kinds, in all countries throughout the world, for all such subject matter.

I agree to do all acts and sign all documents necessary to secure, defend and maintain all said Letters Patent and rights, including any continuations, divisionals, reissues, renewals and extensions, and request issuance of all said Letters Patent to the above assignee in accordance with this assignment.

DATE: 14/11/96


GYULA HADLACZKY

WITNESSED:

DATE: 14. 11. 1996.

Katona Robert
[SIGNATURE OF WITNESS]

KATONA ROBERT
[PRINTED NAME OF WITNESS]

WITNESSED:

DATE: 14. 11. 1996.


[SIGNATURE OF WITNESS]

IMRE CSERPAN
[PRINTED NAME OF WITNESS]

A S S I G N M E N T

WHEREAS, I, ALADAR SZALAY, a citizen of the United States of America and of Canada, residing at 7327 Fairwood, Highland, California 92346, U.S.A., for good and valuable consideration, have assigned and do hereby assign to LOMA LINDA UNIVERSITY, a non-profit organization organized under the laws of the State of California, located in Loma Linda, California 92350, U.S.A. (hereinafter Assignee) its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter invented by me and for which I am under an obligation to assign such right, title and interest to Assignee and which is disclosed in the application for Letters Patent of the United States Serial No. 08/629,822 filed April 10, 1996 and entitled:

**ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR
PREPARING ARTIFICIAL CHROMOSOMES**

and in and to all Convention and Treaty rights of all kinds, in all countries throughout the world, for all such subject matter, including the right to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise and, in and to, all Letters Patent to be obtained for said subject matter by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(b) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent.

I agree to do all acts and sign all documents necessary to secure, defend and maintain all said Letters Patent and rights, including any continuations, divisionals, reissues, renewals and extensions, and request issuance of all said Letters Patent to the above Assignee in accordance with this assignment.

Attorney Docket No. 6869-402

DATE:

March 28/97

A. S. Szalay
ALADAR SZALAY

WITNESSED:

DATE:

March 28/97

[Signature]
[SIGNATURE OF WITNESS]

EILEEN UTTERSON
[PRINTED NAME OF WITNESS]

WITNESSED:

DATE:

Mar 28/97

[Signature]
[SIGNATURE OF WITNESS]

MICHAEL DUNCAN
[PRINTED NAME OF WITNESS]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) or Patentee(s): HADLACZKY, Gyula and SZALAY, Aldar

Serial No. or Patent No.: 08/629,822

Filed or Issued: April 10, 1996

For: ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING
ARTIFICIAL CHROMOSOMES

**VERIFIED STATEMENT (DECLARATION) CLAIMING
SMALL ENTITY STATUS (37 C.F.R. §§1.9(f)
and 1.27(c)) - SMALL BUSINESS CONCERN**

I hereby declare that I am

- () the owner of the small business concern identified below:
(X) an official of the small business concern empowered to act on behalf of the
concern identified below:

NAME OF CONCERN AMERICAN GENE THERAPY INC.
ADDRESS OF CONCERN 5022 154TH STREET, EDMONTON, CANADA T6H5P3

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 C.F.R. §121.3-18 and reproduced in 37 C.F.R. §1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING ARTIFICIAL CHROMOSOMES by inventor(s) GYULA HADLACZKY and ALADAR SZALAY described in

- () the specification filed herewith
(X) application Serial No. 08/629,822, filed April 10, 1996
() Patent No. _____, issued _____

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 C.F.R. §1.9(d) or by any concern which would not qualify as a small business concern under 37 C.F.R. §1.9(d) or a nonprofit organization under 37 C.F.R. §1.9(e).

09096648, 061298

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities (37 C.F.R. §1.27):

Full Name LOMA LINDA UNIVERSITY
 Address Center for Molecular Biology & Gene Therapy, Mortensen Hall, Loma Linda, CA 90350
 () Individual () Small Business Concern (X) Nonprofit Organization

Full Name CHROMOS MOLECULAR SYSTEMS, INC.
 Address 1055 West Hastings, Suite 2020, Vancouver, BC V6E2E9
 () Individual (X) Small Business Concern () Nonprofit Organization

Full Name THE BIOLOGICAL RESEARCH CENTER OF THE HUNGARIAN ACADEMY OF SCIENCES
 Address H-6701 Szeged, P.O.B. 521, HUNGARY
 () Individual () Small Business Concern (X) Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 C.F.R. §1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING

Dr. A. SZALAY

TITLE OF PERSON OTHER THAN OWNER

Director,

ADDRESS OF PERSON SIGNING

5022-154th St.

Edmonton, Alberta

T6H 5P3

SIGNATURE

A. A. Szalay

DATE

Aug 1/1996

052190" 84956060

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 C.F.R. §1.9(d) or by any concern which would not qualify as a small business concern under 37 C.F.R. §1.9(d) or a nonprofit organization under 37 C.F.R. §1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities (37 C.F.R. §1.27).

Full Name LOMA LINDA UNIVERSITY
 Address Center for Molecular Biology & Gene Therapy, Mortensen Hall, Loma Linda, CA 90350
 () Individual () Small Business Concern (X) Nonprofit Organization

Full Name AMERICAN GENE THERAPY INC.
 Address 5022 154TH STREET, EDMONTON, CANADA T6H5PE
 () Individual (X) Small Business Concern () Nonprofit Organization

Full Name THE BIOLOGICAL RESEARCH CENTER OF THE HUNGARIAN ACADEMY OF SCIENCES
 Address H-6701 Szeged, P.O.B. 521, HUNGARY
 () Individual () Small Business Concern (X) Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 C.F.R. §1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING

EILEEN UTTERSON

TITLE OF PERSON OTHER THAN OWNER

Vice-President, Corporate Development

ADDRESS OF PERSON SIGNING

2020 - 1055 West Hastings St.
Vancouver BC

SIGNATURE

VUE 2E9
Eileen Uttersen

DATE

96-07-15

006648-061399

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: HADLACZKY, Gyula and SZALAY, Aladar

Serial No.: 08/629,822

Filed: April 10, 1996

For: ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING ARTIFICIAL CHROMOSOMES

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 C.F.R. §§1.9(f) and 1.27(d) - NONPROFIT ORGANIZATION)

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

NAME OF ORGANIZATION: THE BIOLOGICAL RESEARCH CENTER
OF THE HUNGARIAN ACADEMY OF SCIENCES
ADDRESS OF ORGANIZATION: H-6701 SZEGED, P.O.B. 521
HUNGARY

TYPE OF ORGANIZATION

- (X) University or other Institution of Higher Education
- () Tax Exempt under Internal Revenue Service Code (26 U.S.C. §§501(a) and 501(c) (3))
- () Nonprofit Scientific or Educational under Statute of State of the United States of America (Name of State _____) (Citation of Statute _____)
- () Would qualify as tax exempt under Internal Revenue Service Code (26 U.S.C. §§501(a) and 501(c) (3)) if located in the United States of America
- () Would qualify as nonprofit Scientific or Educational under Statute of State of the United States of America if located in the United States of America (Name of State _____) (Citation of Statute _____)

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 C.F.R. §1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, with regard to the invention entitled ARTIFICIAL CHROMOSOMES, USES THEREOF AND METHODS FOR PREPARING ARTIFICIAL CHROMOSOMES by inventor(s) Gyula Hadlaczky and Aladar Szalay described in

(X) application Serial No. 08/629,822, filed April 10, 1996

I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above-identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 C.F.R. §1.9(d) or by any concern which would not qualify as a small business concern under 37 C.F.R. §1.9(d) or a nonprofit organization under 37 C.F.R. §1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities (37 C.F.R. §1.27).

Full Name Loma Linda University

Address Center for Molecular Biology & Gene Therapy, Mortensen Hall, Loma Linda, CA 920350

() Individual (X) Small Business Concern () Nonprofit Organization

Full Name American Gene Therapy Institute

Address 5022 154th Street, Edmonton, Canada T6H5P3

() Individual (X) Small Business Concern () Nonprofit Organization

Full Name Chromos Molecular Systems, Inc.

Address 1055 West Hastings, Suite 2020, Vancouver, BC V6E2E9

() Individual (X) Small Business Concern () Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 C.F.R. §1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING

Prof. Pál Venetianer

TITLE IN ORGANIZATION

Director General

ADDRESS OF PERSON SIGNING

Biological Research Center H-6726 Szeged, Temesvári kr 62. Hungary

SIGNATURE

[Handwritten Signature]

DATE

18/6/96



0095648-061293